



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,417	09/30/2003	Masahiro Yamanaka	SIC-02-009-1	8051
29863	7590	07/15/2005	EXAMINER	
DELAND LAW OFFICE			LUONG, VINH	
P.O. BOX 69			ART UNIT	PAPER NUMBER
KLAMATH RIVER, CA 96050-0069			3682	

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/676,417

Applicant(s)

YAMANAKA, MASAHIRO

Examiner

Vinh T. Luong

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 35-56 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 35, 36 and 38-56 is/are rejected.  
7) ☒ Claim(s) 37 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
Vinh T. Luong  
Primary Examiner

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/27/05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

Art Unit: 3682

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on June 27, 2005 has been entered.

2. The drawings were received on June 27, 2005. These drawings are not accepted by the Examiner for the reasons set forth in Form PTO – 948 attached.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 35, 36, and 38-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Ernest (GB 356,497 cited by Applicant on January 13, 2005).

Regarding claim 35, Ernest teaches a bicycle crank axle adapted to be rotatably supported within a bottom bracket (shown in phantom or dashed line in Fig. 1) of a bicycle frame, wherein the crank axle comprises:

an axle body 1 having first and second end portions 3 and 15 (Fig. 3);

wherein a portion of the axle body 1 forms a projection 16 extending radially outwardly from one (15) of the first and second end portions 3 and 15 of the axle body 1 (Fig. 1), wherein the projection 16 is dimensioned and positioned to be located externally of the bottom bracket (shown in phantom or dashed line in Fig. 1) so as to abut against a laterally outer side surface 20 of a bicycle crank arm 17 to prevent the bicycle crank arm 17 from moving axially outwardly (see page 2, line 121 through page 3, line 75); and

Art Unit: 3682

wherein the axle body 1 is dimensioned so that the crank arm 17 that abuts against the projection 16 is capable of being mounted to the projection 16 by passing the other one (3) of the first and second end portions 3 and 15 of the axle body 1 through the crank arm 17 and passing the axle body 1 through the crank arm 17 until the crank arm 17 is mounted to the projection 16.

Claim 35 is anticipated by Ernest because Ernest's axle body 1 is capable of passing the other one (3) of the first and second end portions 3 and 15 of the axle body 1 through the crank arm 17 and passing the axle body 1 through the crank arm 17 until the crank arm 17 is mounted to the projection 16. See *In re Schreiber*, 44 U.S.P.Q.2d 1429 (CAFC 1997)(A reference may be from an entirely different field of endeavor than that of the claimed invention or may be directed to an entirely different problem from the one addressed by the inventor, yet the reference will still anticipate if it explicitly or inherently discloses every limitation recited in the claims).

Regarding claim 36, the projection 16 extends circumferentially along the axle body 1 as seen in Fig. 1.

Regarding claim 38, Ernest crank axle 1 further comprises a plurality of splines 15 (Fig. 3) disposed at the one of the first and second end portions of the axle body 1.

Regarding claim 39, the plurality of splines 15 are disposed axially inwardly of the projection 16 (Fig. 1).

Regarding claim 40, the plurality of splines 15 are located in close proximity to the projection 16 (Fig. 1).

Regarding claim 41, the plurality of splines 15 are located directly adjacent to the projection 16 (Fig. 1). Note that the term "adjacent" does not require absolute contact, but requires relatively close position. *Ex parte Hadsel*, 109 USPQ 509 (BPAI 1956).

Art Unit: 3682

Regarding claim 42, the plurality of splines 15 extend radially outwardly from an outer peripheral surface of the axle body 1 (Fig. 3).

Regarding claim 43, Ernest's crank axle 1 further comprises a plurality of splines 4 (Fig. 3) disposed at the other one of the first and second end portions of the axle body 1.

Regarding claim 44, the plurality of splines 4, 15 do not extend radially outwardly from an outer peripheral surface of the axle body 1.

Regarding claim 45, the plurality of splines 4, 15 do not extend radially outwardly from an outer peripheral surface of the axle body 1 located axially inwardly of the plurality of splines 4, 15.

5. Claim 46-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ernest in view of Yamanaka'543 (USP 5,845,543 issued on December 8, 1998).

Regarding claim 46, Ernest teaches the invention substantially as claimed. However, Ernest does not teach the other one of the first and second end portions of the axle body including a threaded opening.

Yamanaka'543 teaches the other one of the first and second end portions of the axle body including the threaded opening 53 for affixing the crank arm. See col. 4, lines 16-23.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the other one of the first and second end portions of Ernest's axle body including the threaded opening for affixing the crank arm as taught or suggested by Yamanaka'543.

Regarding claims 47-49, see regarding claims 43-45 above.

Art Unit: 3682

Regarding claim 50, Ernest's projection 16 is disposed at the first end portion of the axle body 1, and further comprising a plurality of first splines 15 disposed at the first end portion of the axle body 1; and a plurality of second splines 4 disposed at the second end portion of the axle body 1.

Regarding claims 51-56, see regarding claims 39, 40, 44, 45, 36, and 37 above.

6. Claim 37 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Nanko et al. (projection 26).

8. Applicant's arguments filed June 27, 2005 have been fully considered but they are not persuasive.

Applicant contends:

Claim 35 has been amended to clarify that the axle body is dimensioned so that the crank arm that abuts against the projection *is mounted* to the projection *by* passing the other one of the first and second end portions of the axle body through the crank arm and passing the axle body through the crank arm until the crank arm is mounted to the projection. The Ernest axle is structured so that the crank arm *must* be mounted starting at the end portion that contains the projection when assembled. Thus, Ernest neither discloses nor suggests the presently claimed subject matter. (Emphasis added).

First, the Examiner respectfully submits that Applicant's claims are not process claims. Therefore, Applicant's recitation with respect to the manner in which applicant's claimed crank arm is intended to be employed or mounted does not differentiate the claimed crank arm from

Art Unit: 3682

Ernest's crank arm since Ernest teaches all the structural limitations of the claims. *Ex parte Masham*, 2 USPQ2d 1647 (BPAI 1987) and MPEP 2114.

Second, contrary to Applicant's remarks, Ernest's crank arm is capable of being mounted as claimed. In fact, if the user disassembles Ernest's crank arm mechanism shown in Fig. 1 and assembles it back, the user can perform, e.g., the following assembling steps:

- (a) deleting or eliminating the washer 20;
- (b) passing the end 3 of the axle 1 through the aperture 18 of the crank arm 17; and
- (c) mounting the crank arm 17 and the axle 1 to the bottom bracket of the bicycle.

In other words, the user can make Ernest's crank arm abutting with the projection 16 of the axle body 1 by eliminating the washer 20 when the user mounts the crank arm 17 to the axle 1. Therefore, Ernest's axle body 1 and crank arm are capable of performing Applicant's functional statements by eliminating the use of the washer 20. Thus, Applicant's claim 35 is anticipated by Ernest. *In re Schreiber, supra*.

With respect to claim 37, the Examiner agrees that there is no suggestion to extend Ernest's projection 16 completely around the axle body. The rejection of claim 37 is hereby withdrawn.

With respect to the remaining claims, these claims are not patentable for the reasons noted above for claim 35.

9. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action

Art Unit: 3682

after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 571-272-7099. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

July 7, 2005



Vinh T. Luong  
Primary Examiner